

- REMARKS / ARGUMENTS -

Claims 1 to 30 are presently pending in this application.

Claim 1 is amended to correct a minor typographical error, and the scope of the claim is unaffected.

Summary of the Examiner's office action

Claims 1 to 30 are objected to under 35 USC §102(b) as being anticipated by Otto (US 5,008,6012).

Rejection of Claims 1-30 under 35 USC §102(b) using Otto (US 5,008,6012)

The Office Action states that claims 1 to 30 are rejected under 35 USC 102(b) as being anticipated by Otto.

For anticipation under 35 U.S.C. § 102, the reference "must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." (MPEP §706.02). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Otto does not anticipate neither claim 1 nor claims 8, 15, 21, 23 and 24 for the reasons set out below.

Otto describes a current sensing apparatus utilising a transformer as the sensing element, the core of which undergoes cyclic saturation. The current to be sensed flows through the primary winding and induces a current representative of the current to be sensed into the secondary winding. The secondary winding may carry a cyclic current which causes saturation of the core in cyclic fashion.

Otto's apparatus obviously does not provide, "a regulated voltage output from a variable voltage and frequency source in a primary circuit" (claim1 line 1-4).

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Otto's apparatus uses core saturation to create steady state cyclic operation of the transformer with oscillation at very low frequency to measure, at the secondary winding, current flowing at the primary winding. Comparator 108 switches the semi-conductor devices 109, 110, 111 and provides cyclic saturation at the transformer 101. As a result, the output includes two components: the first being the magnetisation current related to the cyclic process and the second component being directly related to the current induced from the primary winding. The first current being subsequently removed using further electronics. Otto does not use a saturation control unit to control regulated voltage output.

Additionally, in Otto's apparatus, saturation of the core "oscillate in a steady cyclic pattern" (col. 3 lines 18-20), i.e. saturation is continuously active, with no interruption, and is thus not selected alternatively to a voltage cancelling unit. Accordingly, Otto's apparatus does not have a selection unit for selecting which unit is to be active.

Finally, Otto does not disclose any feedback signal from the voltage regulated circuit. The Office Action does not show how Otto discloses that voltage from point 107 acts as a feedback signal in its apparatus. The rejection is improper.

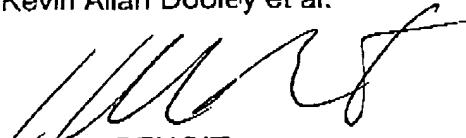
Applicants respectfully submit that Otto does not anticipate Claims 1, 8, 15, 21, 23 and 24 because it does not teach every aspect of the claimed invention either explicitly or impliedly. Claims 2-7 are dependent on Claim 1, Claims 9-14 are dependent on Claim 8, Claims 16-20 are dependent on Claim 15, Claim 22 is dependent on Claim 21 and Claims 25-30 are dependent on Claim 24 and thus are also novel and non-obvious. Reconsideration of the 102(b) rejection is therefore respectfully requested.

It is believed that claims 1-30 are allowable over the prior art, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

Kevin Allan Dooley et al.

By:


C. Marc BENOIT,
Registration No. 50,200
Patent agent
Tel. No. (514)-847-4462

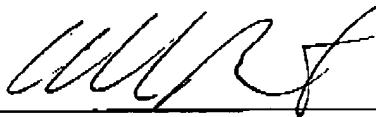
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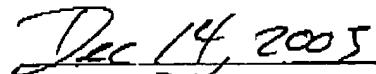
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